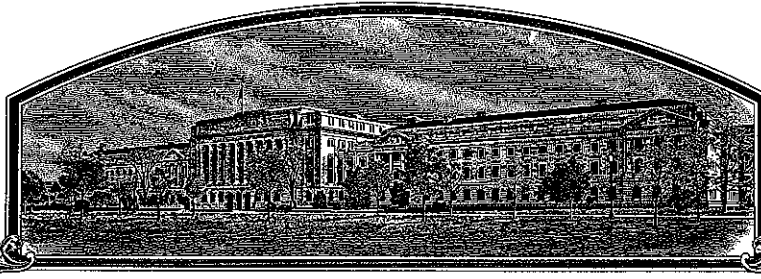


No.

200600215



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Seminis Vegetable Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PUTTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN, GARDEN

'EX 08120703'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of July, in the year two thousand and eight.

Attest:

Alvin Z...
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service


Edmund D. Smith
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Seminis Vegetable Seeds, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME EX 08120703		3. VARIETY NAME Gold-Ribbon 'Ex 08120703' ^{MAH} 5/23/08	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 2700 Camino del Sol Oxnard CA 93030-7967		5. TELEPHONE (include area code) (805) 647-1572		FOR OFFICIAL USE ONLY PVPO NUMBER 200600245 FILING DATE MAY 18, 2006	
		6. FAX (include area code) (805) 918-2545			
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation		8. IF INCORPORATED, GIVE STATE OF INCORPORATION California		9. DATE OF INCORPORATION 4 June 1962	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Carol Miller Seminis Vegetable Seeds, Inc. 37437 State Hwy 16 Woodland CA 95695 Marcel Bruins (marcel.bruins@seminis.com) Seminis Vegetable Seeds, Inc. Physical address: Wageningse Afweg 31 NL-6702 PD Wageningen, The Netherlands (Postal: P.O. Box 97, NL-6700 AB Wageningen The Netherlands) PH: 31 317 468 428; FAX: 31 317 468 431				FILING AND EXAMINATION FEES: \$ 4,382.00 DATE 5/18/06 CERTIFICATION FEE: \$ 768.00 DATE 6/12/08	
11. TELEPHONE (include area code) (530) 669-6274		12. FAX (include area code) (530) 669-6112		13. E-MAIL carol.l.miller@seminis.com	
14. CROP KIND (Common Name) Garden Bean		16. FAMILY NAME (Botanical) Leguminosae		18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) YES NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP Phaseolus vulgaris		17. IS THE VARIETY A FIRST GENERATION HYBRID? YES / NO			
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Exhibit F. Declaration Regarding Deposit g. <input type="checkbox"/> Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) h. <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)				20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) -- YES (if "yes", answer items 21 and 22 below) / NO (if "no", go to item 23) 21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED 22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)				24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? YES / NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	
25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER 		SIGNATURE OF OWNER			
NAME (Please print or type) Carol L. Miller		NAME (Please print or type)			
CAPACITY OR TITLE Specialist		DATE 5/23/06		CAPACITY OR TITLE DATE	

(See reverse for instructions and information collection burden statement)

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). **NEW:** With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. **Retain one copy for your files.** All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

Plant Variety Protection Office
Telephone: (301) 504-5518 FAX: (301) 504-5291
General E-mail: PVPOmail@usda.gov
Homepage: <http://www.ams.usda.gov/science/pvpo/PVPindex.htm>

SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 <http://www.ams.usda.gov/lsg/seed.htm>.

ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
 - (2) the details of subsequent stages of selection and multiplication;
 - (3) evidence of uniformity and stability; and
 - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

US: Sale 5/20/05

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

EXHIBIT A

200600215

Origin and Breeding History of Garden Bean, EX 08120703

EX 08120703 was developed by a combination of pedigree and backcross breeding at Seminis Vegetable Seed's Breeding Stations in Filer / Twin Falls, Idaho and De Forest, Wisconsin under the direction of George Kotch. EX 08120703 originates from a hand pollinated cross between the variety Gold Mine (US PVP # 9100044), a Seminis wax bean cultivar, and the Harris Moran line Hystyle (Expired US PVP # 8600127). Wax bean selections from the cross (Gold Mine/Hystyle) were then backcrossed to Hystyle to create a Bc1. Wax bean selections from the Bc1 materials were then backcrossed with Hystyle a second time to create a Bc2.

Parent A: Hystyle (Expired US PVP # 8600127) was developed and is marketed by the Harris Moran Seed Company. Hystyle is a 5 sieve processing cultivar with immature green pods. Hystyle is a persistent green seed type that has resistance to Bacterial Brown Spot (*Pseudomonas syringae*), Beet Curly Top, and BCMV.

Parent B: Gold Mine (US PVP # 9100044) was developed and is marketed by the Seminis Vegetable Seed Company. Gold Mine is 4/5 sieve wax bean sold in both the processor and fresh markets. Gold Mine is white seeded and has resistance to Halo Blight and BCMV.

Breeding / Selection / Evaluation Scheme:

Year	Season	Gen.	Location	Description
1992	Fall	A/B	Greenhouse Filer, ID	Initial cross made. Hystyle (A) was grown under stake under number R92gh.112. Gold Mine (B) was grown under stake number R92gh.106. Two crosses were made A/B that resulted in 7 F1 seeds.
1993	Spring	F1	Field Filer, ID	3 F1s seeds from F1- R92gh 112x 106 and 4 F1 seeds R92gh 112 x 106 were grown under the head stake R92.5175 as plots 1411 and 1412. 114 grams of F2 seed was harvested from plot 1412.
1993	Summer	F2	Field Filer, ID	114 grams of F2 seed was planted under stake number R93.13876. Nine wax segregates were harvested as single plant selections.
1994	Summer	F3	Field Filer, ID & DeForest, WI	2 packets 30 seeds each were packaged from each single plant selection. Single rows were planted in Filer, ID under stake numbers R94.17397 to R94.17495 and at DeForest, WI under stake numbers BS94.2141 to BS94.2144. 2 Single plant selections from the 9 families based on Bacterial Brown Spot scores and horticultural traits
1995	Spring	F4 / A	Greenhouse Filer, ID	3 plantings of the F4 single plant selection R94.17405.01 were planted in the greenhouse under stake R95gh.113 and used as females to be crossed with Hystyle planted under stake R95gh.114.
1995	Summer	Bc1S0	Field Filer, ID	From the three plantings in the greenhouse 40, 27, & 22 Bc1F1 seeds were harvested & planted under the head stake R95.5350 plots 2645, 2646, and 2647. Each plot was harvested individually.

200600215

1995	Fall	Bc1S1	Greenhouse Filer, ID	From plots R95.5350 - 2545, 2646, & 2647 - 19, 14, & 20 seeds respectively were split planted in 3 pots under stake numbers R95gh.32 - 34. 5 wax bean selections were made. EX 0810703 traces to R96gh.33
1995-96	Spring	Bc1S2/A	Greenhouse Filer, ID	Three seeds of each selection WAX31-34 were planted in the greenhouse (1 pot) under the stake numbers 41 to 47. EX 08120703 traces to R69.46 planted with Stock: WAX33.02. WAX33.03 used as a female was crossed with Hystyle (A) planted under stake 41. The resulting crosses were labeled WAX46x41
1996	Summer	Bc2S0	Field Filer, Id	Twenty-five (25) Bc2F1 seeds of WAX46x41 were planted under the head R96.890 plot no. 87. Thirteen (13) single plants were harvested and labeled R96890.87.01 to 87.13
1997	Summer	Bc2S1	Field Filer, ID & DeForest, WI	Forty-five (45) seeds of each selection (87.01-13) were planted in Filer, ID and 30 seeds in DeForest, WI. Two(2) single plant selections were made from plot number (R97.14467) and designated .01 & .02
1998	Summer	Bc2S2	Field Filer, ID	Fifty-nine (59) seeds from selection R97.14467.02 were planted under stake number R98.14693 and 4 single plant wax selections (.01-.04) were made.
1999	Summer	Bc2S3	Field Filer, ID & DeForest, WI	Fifty seeds (50) of single plant selection R98.14693.01 were planted under stake number R99.12974 in Idaho and 30 seeds planted in Wisconsin under stake number BS98.1704. Based on horticultural performance uniform plants under R99.12974 were bulked
2000	Summer	Bc2S3+1	Field Filer, ID	Five hundred (500) seeds were grown out as farm crop RWG1156 and a generation 0 established

The Seminis foundation seed program in Idaho utilizes a progeny to row design. Observations made during 6 generations of multiplication and increases in Idaho indicated that Ex 08120703 was uniform and stable for plant habit, maturity, pod type, and other horticultural and agronomic characteristics. As is true with other garden beans, a very small percentage of mutations or variants for flat pods or string may occur during the course of repeated replication. Ex 08120703 was within the commercially acceptable limits of .1% (for flat pods) and .01% (for string) for this type of mutation / variant. No other variants or off-types are known or expected to occur.

EXHIBIT B

200600215

Statement of Distinctness for Garden Bean, EX 08120703

EX 08120703 is a wax snap bean for the processor market in the United States developed by backcross and pedigree selection. To our knowledge, the variety that most closely resembles EX 08120703 is Gold Mine (US PVP # 9100044) from Seminis Vegetable Seeds Inc. Both EX 08120703 and Gold Mine are 4/5 sieve wax beans that are marketed and adapted for processor sales in the North Central and Northeast United States. Both cultivars have a yellow wax color and produce high quality 4/5 sieve beans for cross cut and "French style" product.

The comparative characteristic which most readily distinguishes the two varieties includes, but may not be limited to, resistance to Bacterial Brown Spot (*Pseudomonas syringae*). Gold Mine is susceptible to Bacterial Brown Spot, while EX 08120703, based on the best current technology, is considered to have intermediate resistant (Table 1.).

Table 1. Field trial comparison of BBS reaction of Gold Mine and EX 08120703, WI (3 trials), IL.(1 trial). 2003, 2005.

Line	Trial Designation								
	Rep	DI	Score	DI	Score	DI	Score	DI	Score
EX 08120703	1	R	8.0	IR	6.0	R	8.0	IR	5.0
	2	R	7.0	IR	5.0	IR	6.0	IR	4.0
	3	R	8.0						
Gold Mine	1	S	1.0	S	3.0	S	2.0	S	1.0
	2	S	1.0	S	3.5	S	2.0	S	1.0
	3	S	1.0						
Scoring System:									
1 - 3 = S (Susceptible) 4 - 6 = IR (Intermediate Resistance) 7 - 9 = R (Resistant)									

Discussion

Bacterial Brown Spot (*Pseudomonas syringae*) has presented a number of challenges to researchers in *Phaseolus vulgaris* (5,6). There is no standard recognized green house evaluation and much of the work on resistance has been based on field observations under disease pressure (3) or using indirect evaluation of metrics such as host avoidance (7). Additionally the presence of disease is highly weather dependent making evaluation from year to year more difficult (4). None the less resistance has been identified and incorporated into materials based on single season and multiple year observations (1, 2). Using materials with know disease responses to *Pseudomonas syringae* as checks fixed lines with resistance can be identified using simplified scoring and (DI) Disease Index (1,2,3)

References

1. Antonius, S. and D. J. Hagedorn. 1979. New sources of resistance to *Pseudomonas syringae* in *Phaseolus vulgaris*. Ann. Report Bean Improv. Coop. 22:89-90
2. Hagedorn, D. J., and R.E. Rand. 1980. Wisconsin (BBSR) 17 and 28 snap bean breeding lines resistant to *Pseudomonas syringae*. HortSci. 15:208-209.

200600215

3. Hagedorn, D. J., R. E. Rand, and Saad, S. S. 1972. *Phaseolus vulgaris* reaction to *Pseudomonas syringae*. Plant Dis. Rep. 56:325-327
4. Hirano, S.S., Stuart Baker, and C. D. Upper. 1996. Rain drop momentum triggers growth of leaf-associated populations of *Pseudomonas syringae* on field grown snap bean plants. Appl. Env. Microbiol. 62:2560-2566.
5. Hirano, S.S., and C. D., Upper. 1986. Ecology and physiology of *Pseudomonas syringae*. Bio / Technology 3:1073-1078.
6. Hirano, S.S., and C. d., Upper. 1983. Ecology and epidemiology of foliar bacterial pathogens. Ann. Rev. Phytopathol. 21:243-269.
7. Kmiecik, K. A., S. S. Hirano, C. D. Upper, and F. A. Bliss. 1980. Use of leaflet freezing assay to screen *P. vulgaris* for host avoidance type of resistance to bacterial brown spot. Ann. Rep. Bean Improv. Coop. 33:86-87.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Garden Bean (*Phaseolus vulgaris* L.)

NAME OF APPLICANT(S) Seminis Vegetable Seeds	TEMPORARY OR EXPERIMENTAL DESIGNATION 08120703	VARIETY NAME 'Ex 08120703' GOLD RIBBON 12/14/06
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) 2700 Camino del Sol Oxnard, CA 93030		PVP NUMBER 200600215

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g., 0 9 9 or 0 9) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties centered in the same trial. Measured data should be for SPACED PLANTS. Ranges should also be given. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____

Please answer all questions for your variety; lack of response may delay progress of your application.

1. TYPE:

1

1 = Garden

2 = Flageolet

3 = Romano

2. MARKET MATURITY:

5 5

Days to Edible Pods

0 1

Heat Units to Edible Pods

0 1

Number of Days Earlier Than

Same As

0 1

Number of Days Later Than

3

Comparison Variety

Comparison Varieties

1 = Tender crop

3 = Gold rush

5 = Gitana

7 = Bush Blue Lake 290

8 = Other (Specify Below)

2 = Kentucky Wonder

4 = Slenderette

6 = Provider

3. PLANT:

0 1

cm Spacing Between Plants in a Row

1

Habit

1 = Determinate

2 = Indeterminate, Erect Stem and Branches

3 = Indeterminate with Weak and Prostrate Stem and Branches

4 = Indeterminate Climbing Habit with Weak, Long, and Twisted Stem and Branches

4 6

cm Height

0 1

cm Shorter Than

0 8

Same Height As

0 8

cm Taller Than

3

Comparison Variety

Use Comparison Varieties from Section 2

200600215

3. PLANT: (continued)

cm Spread

cm Narrower Than

Same Width As

Comparison Variety

cm Wider Than

Use Comparison Varieties from Section 2

Pod Position: 1 = Low 2 = High 3 = Scattered

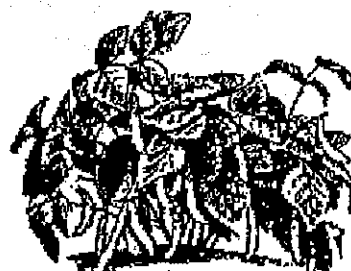
Bush Form (Illustrated Below)



1 = Spherical Bush Form



2 = Stem Bush Form



3 = Wide Bush Form



4 = High Bush Form

5 = Other (Specify) _____

4. LEAVES:

Surface: 1 = Dull 2 = Glossy 3 = Indeterminate

Size: 1 = Small (Gitana) 2 = Medium 3 = Large (Tender Crop)

Color: 1 = Light Green (as Light or Lighter than Gold Rush)
2 = Medium Green
3 = Dark Green (as Dark or Darker than Bush Blue Lake 290)

5. ANTHOCYANIN PIGMENT:

(1 = Absent

2 = Present)

Flowers

Stems

Pods

Seeds

Leaves

Petioles

Peduncles

Nodes

6. FLOWER COLOR AND DAYS TO BLOOM:

Color of Standard

Color of Wings

Color of Keel

Days to 50% Bloom

Flower Color Choices

1 = White 2 = Cream

3 = Pink 4 = Lilac

5 = Purple 6 = Blue

7 = Other (Specify) _____

7. PODS (Edible Maturity):

Exterior Color:
(Fresh)

1 = Light Green (as Light or Lighter than Provider)

2 = Medium Green

3 = Dark Green (as Dark or Darker than Bush Blue Lake 290)

4 = Yellow (Gold Rush)

5 = Green-red Variegated (Horticultural)

6 = Other (Specify) _____

Processed Pods (Exterior Color):

1 = Light (Tender Crop)

2 = Dark (Bush Blue Lake 290)

Dry Pod Color:

1 = Buckskin (Sprite)

2 = Green, Persistent Chlorophyll (Hystyle)

2008 MAY 15 AM 11:07

8

7. PODS (continued):

3

Cross Section Pod Shape:
(Middle of the Pod)

1 = Flat

2 = Heart (Pear)

3 = Round

4 = Figure Eight



1

Crease Back:

1 = Present

2 = Absent

2

Pubescence:

1 = None (Slenderette)

2 = Sparse

3 = Considerable (Provider or Sprite)

2

Constriction (Interocular Cavitation):

1 = None 2 = Slight 3 = Deep

09

mm Spur Length

1

Fiber:

1 = None (Bush Blue Lake 290)

2 = Sparse

3 = Considerable (Sprite)

7

Number of Seeds per Pod

2

Suture String:

1 = Present

2 = Absent

2

Seed Development:

1 = Slow (Bush Blue Lake 290)

2 = Medium

3 = Fast (Provider)

1

Machine Harvest:

1 = Adapted

2 = Not Adapted

Percent sieve size distribution at optimum maturity for not-flat pods

4.76 to 5.76mm	5.76 to 7.34mm	7.34 to 8.34mm	8.34 to 9.53mm	9.53 to 10.72 mm	>10.72mm
	← 7.2 →				
%	%	11.3 %	51.3 %	30.1 %	0 %

3 Sieve

cm Length

mm width

Total mm Thickness

4 Sieve

cm Length

mm width

Total mm Thickness

5 Sieve

cm Length

mm width

Total mm Thickness

6 Sieve

cm Length

mm width

Total mm Thickness

8. SEED COLOR:

Seed Coat Luster: 1 = Shiny 2 = Dull 3 = Semi-Shiny 4 = Variable

1

Seed Coat:

1 = Monochrome 2 = Polychrome

01

Primary Color:

1 = White

2 = Yellow

3 = Buff

4 = Tan

5 = Brown

6 = Pink

7 = Red

8 = Purple

9 = Blue

10 = Black

11 = Other

Secondary Color:

1 = White

2 = Yellow

3 = Buff

4 = Tan

5 = Brown

6 = Pink

7 = Red

8 = Purple

9 = Blue

10 = Black

11 = Other

Seed Coat Pattern:

1 = Solid

2 = Splashed

3 = Mottled

4 = Striped

5 = Flecked

6 = Dotted

1

Hilar Ring:

1 = Absent

2 = Present

Hilar Ring Color:

1 = White

2 = Yellow

3 = Buff

4 = Tan

5 = Brown

6 = Pink

7 = Red

8 = Purple

9 = Blue

10 = Black

11 = Other

9. SEED SHAPE AND SIZE:

2

Hilum View:



1 = Elliptical



2 = Oval



3 = Round

4

Cross Section:

1 = Elliptical

2 = Oval

3 = Cordate

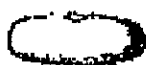
4 = Round

200600215

9. SEED SHAPE AND SIZE: (continued)

1

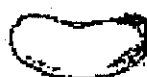
Side View:



1 = Oval to Oblong



2 = Round



3 = Reniform

24

gm/100 Seeds

☐

gm/100 Seeds Lighter Than

☐

gm/100 Seeds Same As

☐

gm/100 Seeds Heavier Than

☐
☒
☐

Comparison Variety

10. DISEASE RESISTANCE: 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant

1

Anthracnose (*Colletotrichum lindemuthianum*)
☐

Race Alpha

☐

Race Beta

☐

Race Gamma

☐

Race Delta

☐

Race Epsilon

☐

Race Lambda

☐

Race Kappa

☐

Specify Race _____

1

Bean Rust (*Uromyces appendiculatus*)
☐

Race 38

☐

Race 39

☐

Race 40

☐

Race 44

☐

Race 45

☐

Race 46

☐

Race 49

☐

Race 50

☐

Race 51

☐

Race 52

☐

Race 54

☐

Race 56

☐

Race 59

☐

Specify Race _____

0

Powdery Mildew (*Erysiphe polygoni*)

0

Fusarium Root Rot (*Fusarium solani* f. sp. *phaseoli*)

0

Pythium Root Rot (*Pythium* spp.)

1

Aphanomyces Root Rot (*Aphanomyces euteiches*)

0

Rhizoctonia Root Rot (*Rhizoctonia solani*)

0

Pythium Blight or Aerial Pythium (*Pythium ultimum*)

0

Angular Leaf Spot (*Isariopsis griseola*)

0

Bacterial Wilt (*Corynebacterium flaccumfaciens* subsp. *flaccumfaciens*)

2

Bacterial Brown Spot (*Pseudomonas syringae* pv. *syringae*)

0

Common Bacterial Blight (*Xanthomonas campestris* pv. *phaseoli*)

1

Halo Blight (*Pseudomonas syringae* pv. *phaseolicola*)
☐

Race 1

☐

Race 2

0

Clover Yellow Vein Virus (CYVV)

2

Bean Common Mosaic Virus (BCMV)

☐

BV1

☐

NY15

☐

NL2

☐

NL3

☐

NL4

☐

NL8

☐

Florida

☐

Idaho

☐

Mexican

☐

Western

☐

Type

☒

Other (Specify) "I" gene resistance

0

Yellow Bean Mosaic Virus (BYMV)

0

Curly Top Virus (BCTV)

☐

Other (Specify Disease and Race or Strain _____)

2006 MAY 25 AM 11:07

10

11. INSECT RESISTANCE: 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant

<input type="text" value="0"/>	Aphid	<input type="text" value="0"/>	Root Knot Nematode
<input type="text" value="0"/>	Leafhopper	<input type="text" value="0"/>	Seed Corn Maggot
<input type="text" value="0"/>	Lygus	<input type="text" value="0"/>	Thrips
<input type="text" value="0"/>	Pod Borer	<input type="text" value="0"/>	Weevils
<input type="text"/>	Other (Specify) _____		

12. PHYSIOLOGICAL RESISTANCE: 0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant

<input type="text" value="0"/>	Heat	<input type="text" value="0"/>	Cold	<input type="text" value="0"/>	Drought
<input type="text" value="0"/>	Air Pollution	<input type="text" value="2"/>	Ozone		
<input type="text"/>	Other (Specify) _____				

13. COMMENTS:

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Seminis Vegetable Seeds, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER EX 08120703	3. VARIETY NAME Gold-Ribbon Ek 08120703
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 2700 Camino del Sol Oxnard CA 93030-7967	5. TELEPHONE (Include area code) (805) 647-1572	6. FAX (Include area code) (805) 918-2545
7. PVPO NUMBER 200600215		
8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

The variety named in this application was developed by the Seminis Vegetable Seeds, Inc., employee (breeder) named below. Unless otherwise stated, all rights to the varieties developed by Seminis Vegetable Seeds, Inc. are assigned to the Company by agreement or by operation of law. No rights to such invention, discovery or development are retained by the employee(s).

Employee (Breeder): Ken Kmiecsek

Site Location: DeForest, WI

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

**EXHIBIT F
DECLARATION REGARDING DEPOSIT**

NAME OF OWNER (S) Seminis Vegetable Seeds, Inc.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 2700 Camino del Sol Oxnard, CA 93030-7967	TEMPORARY OR EXPERIMENTAL DESIGNATION EX 08120703
NAME OF OWNER REPRESENTATIVE (S) Carol L. Miller	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 37437 State Hwy 16 Woodland CA 95695	VARIETY NAME Gold Ribbon 'EX 08120703' 5/23/06 <div style="background-color: black; color: white; text-align: center; padding: 2px;">FOR OFFICIAL USE ONLY</div> PVPO NUMBER 200600215

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Signature Carol L. Miller

Date 5/23/06